CLAIMS:

1 A stabilizer control device for vehicle, comprising:
a pair of stabilizer bars provided between a left wheel and a right wheel of a vehicle; and
an actuator including a reduction mechanism connecting between said pair of stabilizer bars and a motor connected to the reduction mechanism for providing torsion force to said pair of stabilizer bars through the reduction mechanism;
wherein the reduction mechanism comprises a first gear and a second gear for generating relative rotational speeds differential therebetween, the first gear and the second gear are coaxially placed adjacent to each other, and opposed side faces of stabilizer bars are adjacently connected with the first gear and the second gear respectively and disposed in the reduction mechanism.

2 A stabilizer control device for vehicle according to claim 1, wherein the first gear and the second gear include a pair of internal tooth gears with different number of teeth, and a common planetary gear train is engaged with both internal tooth gears.

3 A stabilizer control device for vehicle according to claim 1, wherein the first gear and the second gear are cooperatively associated with each other.

4 A stabilizer control device for vehicle according to claim 1, wherein the motor is a brush-less motor with a rotor and a stator, and one of the pair of stabilizer bar is integrally attached to the first gear passing through the rotor.

5 A stabilizer control device for vehicle according to claim 4, wherein the motor and the reduction mechanism are disposed in a housing, and the other of the pair of stabilizer bar is integrally attached to the housing.

6 A stabilizer control device for vehicle according to claim 4, wherein the motor and the reduction mechanism are disposed in a housing, and the one of

the pair of stabilizer bars connected to the first gear passing through the rotor is supported at both sides of the motor and the first gear.

7 A stabilizer control device for vehicle according to claim 6, wherein the other of the pair of stabilizer bar is integrally attached to the housing.

8 A stabilizer control device for vehicle according to claim 6, wherein the one of the stabilizer bar is attached to the housing by spline connection.

9 A stabilizer control device for vehicle according to claim 2, wherein the planetary gear train includes plural planetary gear sets.

10 A stabilizer control device for vehicle according to claim 2, wherein the planetary gear train is a multistage planetary gear.

11 A stabilizer control device for vehicle according to claim 1, wherein a rotation detection means is provided in the housing for detecting rotation of at least one of the stabilizer bars.